

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A data processing apparatus, comprising:
 - an input portion;
 - an output portion;
 - a plurality of compressing/expanding devices which that compress data-to-be-output outputted that is inputted from said input portion and expand compressed data-to-be-output outputted;
 - a file memory which stores said compressed data-to-be-output outputted, the data-to-be output being compressed by some or all of said plurality of compressing/expanding devices;
 - a data discrimination portion which discriminates whether said input data-to-be-output outputted inputted from said input portion is data including a small amount of information or a large amount of information; and
 - a transfer controller,
wherein, in cases where it is discriminated by said data discrimination portion that said data-to-be-output outputted is data including a small amount of information, said transfer controller transfers said data-to-be-output outputted to said output portion through less than all of said plurality of compressing/expanding devices operating in parallel, and

wherein, in cases where it is discriminated by said data discrimination portion that said data-to-be-output outputted is data including a large amount of information, said transfer controller transfers said data-to-be-output outputted to at least some some or all of said plurality of compressing/expanding devices while transferring said data-to-be-outputted to said output portion.

2. (Currently Amended) The data processing apparatus as recited in claim 1, further comprising a compressing/expanding controller,

wherein, in cases where said data-to-be-output outputted is data including a small amount of information, said compressing/expanding controller assigns some of said plurality of compressing/expanding devices to compressing operation and assigns some or all of the other of said plurality of compressing/expanding devices to expanding operation, and

wherein, in cases where said data-to-be-output outputted is data including a large amount of information, said compressing/expanding controller assigns all of said plurality of compressing/expanding devices to compressing operation at the time of compressing said data-to-be-input inputted and to expanding operation at [[the]] a time of expanding said data-to-be-output outputted.

3. (Currently Amended) The data processing apparatus as recited in claim 2, further comprising an output discrimination portion which discriminates whether an outputting operation of said output portion is a first set-of outputting operation or a second or subsequent set-of outputting operation,

wherein, in cases where said data-to-be-output outputted is data including a small amount of information, if it is discriminated by said output discrimination portion that said outputting operation of said output portion is a first set-of-outputting operation, said transfer controller transfers said data-to-be-output outputted input inputted from said input portion to a file memory through some of said plurality compressing/expanding devices assigned to a compressing operation and further transfers said data-to-be-output outputted to said output portion through some-or-all at least some of the other of said plurality of compressing/expanding devices assigned to the expanding operation, and if it is discriminated by said output discrimination portion that an outputting operation of said output portion is a second or subsequent set-of-outputting operation, said transfer controller transfers compressed data-to-be-output outputted stored in said file memory to said output portion through said some or all of the other of said plurality of compressing/expanding devices assigned to expanding operation, and

wherein, in cases where said data-to-be-output outputted is data including a large amount of information, if it is discriminated by said output discrimination portion that said outputting operation of said output portion is a first set-of-outputting operation, said transfer controller transfers said data-to-be-output outputted that is input inputted from said input portion to a file memory through all of said plurality compressing/expanding devices assigned to compressing operation while transferring said data-to-be-output outputted to said output portion, and if it is discriminated by said output discrimination portion that said outputting operation of said output portion is a second or subsequent set-of-outputting operation, said transfer controller transfers compressed data-to-be-output outputted stored in said

file memory to said output portion through all of said plurality of compressing/expanding devices assigned to expanding operation.

4. (Currently Amended) The data processing apparatus as recited in claim 1, wherein said data-to-be-output outputted including a small amount of information is monochrome data and said data-to-be-output outputted including a large amount of information is color data, and wherein said data discrimination portion discriminates whether said data-to-be-output outputted is said monochrome data or said color data.

5. (Currently Amended) The data processing apparatus as recited in claim 1, wherein said data-to-be-output outputted including a small amount of information is binary data and said data-to-be-output outputted including a large amount of information is multi-valued data, and wherein said data discrimination portion discriminates whether said data-to-be-output outputted is said binary data or said multi-valued data.

6. (Original) The data processing apparatus as recited in claim 5, wherein said binary data includes binarized color data.

7. (Currently Amended) The data processing apparatus as recited in claim 2, wherein, in cases where said data-to-be-output outputted is data including a small amount of information, said compressing/expanding controller further changes

operational assignment of said plurality of compressing/expanding devices depending on an amount of information.

8. (Currently Amended) A data processing method, comprising:
discriminating whether data-to-be-output outputted is data including a small amount of information or a large amount of information;

executing a compressing operation of said data-to-be-output outputted and expanding operation of compressed data-to-be-output outputted by less than all of a plurality of compressing/expanding devices operating in parallel, and thereafter executing an outputting operation of on the expanded data-to-be-output outputted in cases where it is discriminated that said data-to-be-output outputted is data including a small amount of information; and

executing the compressing operation of said data-to-be-output outputted while executing the outputting operation of said data-to-be-output outputted in cases where it is discriminated that said data-to-be-output outputted is data including a large amount of information.

9. (Currently Amended) The data processing method as recited in claim 8, wherein, in cases where it is discriminated that said data-to-be-output outputted is data including a small amount of information, some of said plurality of expanding/compressing devices are assigned to the compressing operation and some or all of the other of said plurality of the expanding/compressing devices are assigned to expanding operation, and

wherein, in cases where it is discriminated that said data-to-be-output outputted is data including a large amount of information, all of said plurality of expanding/compressing devices are assigned to the compressing operation at the time of compressing said a data-to-be-input inputted and to the expanding operation at [[the]] a time of expanding said data-to-be-input inputted.

10. (Currently Amended) The data processing method as recited in claim 9, wherein it is discriminated whether said outputting operation is a first set-of outputting operation or a second or subsequent set-of outputting operation,

wherein, in cases where said data-to-be-output outputted is data including a small amount of information, if it is discriminated that said outputting operation is a first set-of outputting operation, said inputted data-to-be-output outputted is transferred to a file memory through some of said plurality compressing/expanding devices assigned to compressing operation and then outputted output through some or all of the other of said plurality of compressing/expanding devices assigned to expanding operation, and if it is discriminated that said outputting operation is a second or subsequent set-of outputting operation, said compressed data stored in said file memory is outputted output through said some or all of the other of said plurality of compressing/expanding devices assigned to the expanding operation, and

wherein, in cases where said data-to-be-output outputted is data including a large amount of information, if it is discriminated that said outputting operation is a first set-of outputting operation, inputted input data-to-be-output outputted is transferred to a file memory through all of said plurality compressing/expanding

devices assigned to compressing operation while transferring said data-to-be-output outputted to an output portion, and if it is discriminated that said outputting operation is a second or subsequent set of outputting operation, compressed data stored in said file memory is transferred to said output portion through all of said plurality of compressing/expanding devices assigned to expanding operation.

11. (Currently Amended) The data processing method as recited in claim 8, wherein said data-to-be-output outputted including a small amount of information is monochrome data and said data-to-be-output outputted including a large amount of information is color data, and wherein data discrimination is performed by discriminating whether said data-to-be-output outputted is said monochrome data or said color data.

12. (Currently Amended) The data processing method as recited in claim 8, wherein said data-to-be-output outputted including a small amount of information is binary data and said data-to-be-output outputted including a large amount of information is multi-valued data, and wherein data discrimination is performed by discriminating whether said data-to-be-output outputted is said binary data or said multi-valued data.

13. (Original) The data processing method as recited in claim 12, wherein said binary data includes binarized color data.

14. (Currently Amended) The data processing method as recited in claim 9, wherein, in cases where said data-to-be-output outputted is data including a small amount of information, operational assignment of said plurality of compressing/expanding devices is changed depending on an amount of information.

15. (Currently Amended) An image forming apparatus, comprising:
a scanner which outputs an original image by converting into electronic data with a photoelectric transferring element;
an input port which receives a print job from an external device including a computer and a facsimile apparatus;
an input adjusting portion which receives a scanned image job outputted from said scanner and a print job inputted into said input port;
a plurality of compressing/expanding devices which compress data-to-be-output outputted included in a job inputted from said input adjusting portion and expand compressed data-to-be-output outputted;
a storage which stores said compressed data-to-be-output outputted;
a printer which prints out data-to-be-output outputted, said data-to-be-output being included in said print job or said scanned image job on a sheet;
a data discrimination portion which discriminates whether said data-to-be-output outputted is data including a small amount of information or a large amount of information; and
a transfer controller,

wherein, in cases where it is discriminated by said data discrimination portion that said data-to-be-output outputted is data including a small amount of information, said transfer controller transfers said data-to-be-output outputted to said printer through less than all of said plurality of compressing/expanding devices operating in parallel, and

wherein, in cases where it is discriminated by said data discrimination portion that said data-to-be-output outputted is data including a large amount of information, said transfer controller transfers said data-to-be-output outputted to at least some or all of said plurality of compressing/expanding devices while transferring said data-to-be-output outputted to said an output portion.

16. (Currently Amended) The image forming apparatus as recited in claim 15, further comprising a compressing/expanding controller,

wherein, in cases where said data-to-be-output outputted is data including a small amount of information, said compressing/expanding controller assigns some of said plurality of compressing/expanding devices to compressing operation and assigns some or all of the other of said plurality of compressing/expanding devices to expanding operation, and

wherein, in cases where said data-to-be-output outputted is data including a large amount of information, said compressing/expanding controller assigns all of said plurality of compressing/expanding devices to compressing operation at [[the]] a time of compressing said a data-to-be-inputted and assigns all of said plurality of compressing/expanding devices to expanding operation at the time of expanding said data-to-be-output outputted.

17. (Currently Amended) The image forming apparatus as recited in claim 16, further comprising an output discrimination portion which discriminates whether an outputting operation of said printer is a first set of outputting operation or a second or subsequent set-of-outputting operation,

wherein, in cases where said data-to-be-output outputted is data including a small amount of information, if it is discriminated by said output discrimination portion that said outputting operation of said printer is a first set-of-outputting operation, said transfer controller transfers said data-to-be-output outputted to said storage through some of said plurality compressing/expanding devices assigned to a compressing operation and further transfers said data-to-be-output outputted to said printer through some or all of the other of said plurality of compressing/expanding devices assigned to expanding operation, and if it is discriminated by said output discrimination portion that said output from said printer is a second or subsequent set-of-output, said transfer controller transfers compressed data-to-be-output outputted stored in said storage to said printer through said some or all of the other of said plurality of compressing/expanding devices assigned to expanding operation, and

wherein, in cases where said data-to-be-output outputted is data including a large amount of information, if it is discriminated by said output discrimination portion that said outputting operation of said printer is a first set-of-outputting operation, said transfer controller transfers said data-to-be-output outputted to said storage through all of said plurality compressing/expanding devices assigned to compressing operation while transferring said data-to-be-output outputted to said printer, and if it

is discriminated by said output discrimination portion that said outputting operation of said printer is a second or subsequent set-of-outputting operation, said transfer controller transfers compressed data-to-be-output outputted stored in said storage to said printer through all of said plurality of compressing/expanding devices assigned to expanding operation.

18. (Currently Amended) The image forming apparatus as recited in claim 15, wherein said data-to-be-output outputted including a small amount of information is monochrome data and said data-to-be-output outputted including a large amount of information is color data, and wherein said data discrimination portion discriminates whether said data-to-be-output outputted is said monochrome data or said color data.

19. (Currently Amended) The image forming apparatus as recited in claim 15, wherein said data-to-be-output outputted including a small amount of information is binary data and said data-to-be-output outputted including a large amount of information is multi-valued data, and wherein said data discrimination portion discriminates whether said data-to-be-output outputted is said binary data or said multi-valued data.

20. (Original) The data processing apparatus as recited in claim 19, wherein said binary data includes binarized color data.

21. (Currently Amended) The data processing apparatus as recited in claim 16, wherein, in cases where said data-to-be-output outputted is data including a small amount of information, said compressing/expanding controller further changes operational assignment of said plurality of compressing/expanding devices depending on an amount of information.